

AMENDMENTS

In the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

1-5. (Cancelled).

6. (Previously Presented) An ultrasonic atomizer comprising:

an ultrasonic pump comprising a pump shaft formed to have a pump bore passing through it axially and having open upper and lower ends, and an ultrasonic vibrator mounted on the pump shaft in the vicinity of the midpoint thereof with respect to the axial direction;

a liquid vessel provided at a position at which it is penetrated by a lower end of said pump shaft;

a mesh plate placed on an upper end face of said pump shaft and formed to have a multiplicity of minute holes; and

a biasing resilient member for biasing said mesh plate toward the upper end face of said pump shaft,

wherein the upper end face of said pump shaft is formed to have a protuberance which projects in an area that includes the opening in the upper end of said pump bore.

7. (Previously Presented) An ultrasonic atomizer comprising:

an ultrasonic pump comprising a pump shaft formed to have a pump bore passing through it axially and having open upper and lower ends, and an ultrasonic vibrator mounted on the pump shaft in the vicinity of the midpoint thereof with respect to the axial direction;

a liquid vessel provided at a position at which it is penetrated by a lower end of said pump shaft;

a mesh plate placed on an upper end face of said pump shaft and formed to have a multiplicity of minute holes; and

a biasing resilient member for biasing said mesh plate toward the upper end face of said pump shaft,

wherein said mesh plate is formed to have a shape in which the central portion thereof is bent or curved slightly so as to point downward.

8. (Canceled)

9. (Previously Presented) An ultrasonic atomizer comprising:

an ultrasonic pump comprising a pump shaft formed to have a pump bore passing through it axially and having open upper and lower ends, and an ultrasonic vibrator mounted on the pump shaft in the vicinity of the midpoint thereof with respect to the axial direction;

a liquid vessel provided at a position at which it is penetrated by a lower end of said pump shaft;

a mesh plate placed on an upper end face of said pump shaft and formed to have a multiplicity of minute holes; and

a biasing resilient member for biasing said mesh plate toward the upper end face of said pump shaft,

wherein said biasing resilient member is a compression coil spring having a coil diameter which becomes progressively smaller as said mesh plate is approached, in such a manner that said mesh plate is biased at a position thereof situated on the upper end face of said pump shaft.

10-22. (Canceled)

23. (Currently Amended) A mesh plate used to produce an ultrasonic atomizing action, comprising a single plate-shaped body having two surfaces overall and formed to include a multiplicity of minute holes passing through the plate-shaped body from one surface to the other surface, said plate-shaped body being curved over its entire surface or folded and continuously deformed at the location of each minute hole in such a manner that each minute hole flares in a direction from the one surface to the other surface and a groove or recess is formed in said one surface between mutually adjacent ones of the minute holes.

24. (Original) An ultrasonic atomizer according to claim 23, wherein cut-outs of different size are formed in the periphery of said mesh plate at least at two locations other than

locations having point symmetry about the center of said mesh plate.

25. (Original) An ultrasonic atomizer according to claim 23, wherein said minute holes are formed at equal intervals along sides of a multiplicity of regular hexagons whose diagonals vary at fixed distances.

26. (Original) An ultrasonic atomizer according to claim 23, wherein a small area devoid of formation of minute holes is present in an area surrounded by said minute holes.

27. (Original) An ultrasonic atomizer according to claim 23, wherein an area devoid of said minute holes is present at a central portion.